

UNIVERSITY OF CALIFORNIA, SAN DIEGO  
LA JOLLA, CALIFORNIA

SCHOOL OF SCIENCE AND ENGINEERING

June 1, 1961

Professor Joshua Lederberg  
Department of Genetics  
Stanford University Medical School  
Palo Alto, California

Dear Professor Lederberg:

I received a call from NASA about attending an informal conference in Moscow in August on exobiology. I tried to reach you on the phone several times to talk to you about this but was unsuccessful. I was not planning to attend the International Symposium in Moscow and would rather work in the lab here. If you think it is worthwhile for me to attend this informal discussion in Moscow, I will of course plan to go. I would appreciate finding out more about this conference, and your opinion as to whether I should attend.

I have been having long and informal arguments with people at Jet Propulsion Laboratory (mostly George Hobby) about including a humidity meter in the 1964 Mars probe. It is true that the gas chromatograph can measure the water, but this is a complex device and might not work, and it may be difficult to interpret the results. A humidity meter could measure the water as a function of height, which I do not think the gas chromatograph is fast enough to do. The humidity meter could also calibrate the gas chromatograph. I think that if the humidity is known as a function of height, a meteorologist could tell us a great deal about the structure of the atmosphere. The humidity is also important in the biological problems.

From the standpoint of weight, there can be few objections to including a humidity meter, since I am sure the meter can be reduced to less than a pound, and probably a few ounces. Also the bandwidth problem is small, since the bus will be close and only twenty or so numbers need to be transmitted.

I am not connected with NASA, and I find that it is difficult to get any action at JPL on this obviously important and simple experiment. I am bringing this to your attention in the case that you may want to push this matter.

Very sincerely yours,

*Stanley L. Miller*

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SLM:mc